

WE CLAIM:

1. A system for managing changes in state of a navigation-based application, comprising:
 - a journal engine for maintaining a journal, the journal being associated with a container that navigates to and hosts a resource, the resource including a mechanism for causing to be stored in the journal a journal entry that includes information about a change in state of the resource, the journal entry being operative to restore the resource to the state prior to the change.
2. The system recited in claim 1, wherein the change in state of the resource is initiated by input from a user interacting with the resource.
3. The system recited in claim 1, wherein the resource is associated with a navigation-based application.
4. The system recited in claim 2, wherein the navigation-based application comprises a plurality of resources and includes a mechanism for navigating among each of the plurality of resources.
5. The system recited in claim 3, wherein the navigation-based application is browser-hosted.
6. The system recited in claim 3, wherein the navigation-based application is stand-alone.
7. The system recited in claim 1, wherein the journal entry includes a method that is configured to restore the resource to the state prior to the change.

8. The system recited in claim 7, wherein the method is further configured to create a second journal entry operative to restore the resource to its state subsequent to the change.

9. The system recited in claim 1, wherein the resource further includes a mechanism for altering the state of the resource.

10. A computer-readable medium having computer executable components for managing changes in state of a navigation-based application, comprising:

a resource including a mechanism for altering a state of the resource from a first state to a second state; and

a description of a journal entry having a method for restoring the resource from the first state to the second state, the method being further configured to create a second journal entry to undo the restoration of the resource from the first state to the second state.

11. The computer-readable medium of claim 10, wherein the resource is further configured to cause the journal entry to be added to a journal that includes information about navigations among a plurality of resources.

12. The computer-readable medium of claim 10, wherein the resource is a component of the navigation-based application.

13. The computer-readable medium of claim 10, wherein the navigation-based application includes a plurality of resources that are hyperlinked together.

14. A computer-readable medium encoded with a data structure, the data structure comprising:

a journal entry having a Replay method, the Replay method being configured to restore a resource from a first state to a second state, the Replay method being further configured to create a second journal entry to restore the resource from the second state to the first state.

15. The computer-readable medium of claim 14, wherein the resource comprises a component of a navigation-based application.

16. The computer-readable medium of claim 14, wherein the journal entry is configured to be added to a journal that includes information about navigations between resources of a navigation-based application.

17. The computer-readable medium of claim 16, wherein the journal is associated with a window of the navigation-based application.

18. The computer-readable medium of claim 16, wherein the journal is associated with a session.

19. The computer-readable medium of claim 18, wherein the session comprises a browser session.

20. The computer-readable medium of claim 18, wherein the session comprises a lifetime of the navigation-based application.

21. A software architecture for managing changes in state of a navigation-based application, comprising:
- an internal system that supports the maintenance of entries in a journal, the journal being operative to maintain state information related to navigations among resources in a navigation-based application; and
 - a set of interfaces that support the inclusion of entries in the journal, the journal entries being related to non-navigation activity.
22. The software architecture recited in claim 21, wherein the set of interfaces includes an AddEntry method for adding a journal entry to the journal
23. The software architecture recited in claim 21, wherein the set of interfaces includes a RemoveEntry method for removing a journal entry from the journal.
24. The software architecture recited in claim 23, wherein the RemoveEntry method is further configured to remove a journal entry from a Back stack portion of the journal.
25. The software architecture recited in claim 21, wherein the set of interfaces is provided by a base class having a Name property that identifies a name of the journal entry in the journal.
26. The software architecture recited in claim 21, wherein the set of interfaces is provided by a base class having a Replay method configured to restore a resource from a first state to a second state.

27. The software architecture recited in claim 26, wherein the Replay method is further configured to create and return a second journal entry for inclusion in the journal.

28. The software architecture recited in claim 27, wherein the second journal entry is configured to restore the resource from the second state to the first state.

29. A computer-readable medium encoded with computer-executable instructions, comprising:

receiving a notification to add a journal entry to a journal, the journal entry being associated with a resource, the journal entry including sufficient information to restore the resource from a first state to a second state, the first state being associated with a first set of characteristics of the resource, the second state being associated with a second set of characteristics of the resource; and

adding the journal entry to the journal.

30. The computer-readable medium of claim 29, wherein the journal entry further comprises a mechanism for restoring the resource from the second state to the first state.

31. The computer-readable medium of claim 30, wherein the mechanism is configured to create a second journal entry having sufficient information to restore the resource from the second state to the first state.